AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1-40 (Cancelled).

41. (Previously Presented) A method for analyzing a sample, comprising:

providing ~~at least one~~ two light sources;

coupling light emitted from the two light sources into a common beam;

guiding ~~light emitted from the at least one light source~~ the common beam through a sample to be analyzed to generate a first signal and a second signal different from the first signal;

detecting the first signal impinging at angles around the common beam to obtain a nephelometric measurement of the sample; and

~~substantially simultaneously~~ detecting the second signal to obtain a spectrophotometric measurement of the sample.

42. (Currently Amended) The method of claim 41, wherein providing ~~at least one~~ the two light sources includes providing first and second light sources.

43. (Previously Presented) The method of claim 42, wherein providing the first and second light sources includes providing the first light source having a first spectral

bandwidth and the second light source having a second spectral bandwidth different from the first bandwidth.

44. (Previously Presented) The method of claim 43, wherein providing the first light source includes providing the first having a narrow band emission in one of the red and infrared spectral regions.

45. (Previously Presented) The method of claim 44, wherein the narrow band emission is in the range between 650 nm and 950 nm.

46. (Previously Presented) The method of claim 43, wherein providing the second light source includes providing the second light source having an emission band of between 300 nm and 800 nm in the spectral regions.

47. (Previously Presented) The method of claim 42, wherein one of the first and second light sources is in the ultraviolet spectral region.

48. (Previously Presented) The method of claim 42, wherein at least one of the first and second light sources is a xenon pulsed light.

49. (Previously Presented) The method of claim 42, wherein one of the first and second light sources is a light-emitting diode.

50. (Previously Presented) The method of claim 49, wherein the light-emitting diode emits light in the spectral regions ranging from 800 nm to 950 nm.

51. (Previously Presented) The method of claim 42, further comprising pulsing at least one of the first and second light sources.

52. (Previously Presented) The method of claim 41, wherein providing the at least one light source includes pulsing the at least one light source.

53-54. (Cancelled).

55. (Previously Presented) The method of claim 41, wherein guiding the light emitted from the at least one light sources includes guiding the light through a filter.

56. (Previously Presented) The method of claim 55, wherein guiding the light emitted from the at least one light source further includes guiding the light through a diaphragm.

57. (Previously Presented) The method of claim 41, further comprising detecting the light for a reference signal.

58. (Currently Amended) ~~The method of claim 54, further comprising~~ A method for analyzing a sample, comprising:

providing two light sources;

coupling light emitted from the two light sources into a common beam;

masking out light impinging at small angles around the common beam;

guiding light emitted from the common beam through a sample to be analyzed to generate a first signal and a second signal different from the first signal; and

detecting the first signal to obtain a nephelometric measurement of the sample;

substantially simultaneously detecting the second signal to obtain a spectrophotometric measurement of the sample.

59. (Currently Amended) ~~The method of claim 54, further comprising~~ A method for analyzing a sample, comprising:

providing two light sources;

coupling light emitted from the two light sources into a common beam;

guiding light emitted from the common beam through a sample to be analyzed to generate a first signal and a second signal different from the first signal;

detecting light impinging at small angles around the common beam;

detecting the first signal to obtain a nephelometric measurement of the sample; and

substantially simultaneously detecting the second signal to obtain a spectrophotometric measurement of the sample.

60. (Currently Amended) ~~The method of claim 54, further comprising~~ A method for analyzing a sample, comprising:

providing two light sources;

coupling light emitted from the two light sources into a common beam;

guiding light emitted from the common beam through a sample to be analyzed to generate a first signal and a second signal different from the first signal;

detecting light at angles of less than 5 degrees around a forward direction of the common beam;

detecting the first signal to obtain a nephelometric measurement of the sample;

substantially simultaneously detecting the second signal to obtain a spectrophotometric measurement of the sample.

61. (Previously Presented) The method of claim 54, further comprising deflecting light out of the common beam.

62. (Previously Presented) The method of claim 41, further comprising separating out light of an undesirable spectral region to suppress it.

63. (Currently Amended) The method of claim 41, further comprising exciting the sample to be analyzed with the light emitted from the ~~at least one~~ two light sources.

64. (Currently Amended) The method of claim 41, further comprising calibrating wavelengths and absorptions of the light emitted from the ~~at least one~~ two light sources.

65. (Previously Presented) The method of claim 41, further comprising amplifying and converting at least one of the first and second signals.

66. (Previously Presented) The method of claim 41, further comprising commonly controlling detection, evaluation, and presentation of at least one of the first and second signals.

67. (Previously Presented) The method of claim 41, further comprising performing an in-vitro analysis.

68. (Previously Presented) The method of claim 41, further comprising changing the position of the sample to be analyzed.

69. (Currently Amended) An apparatus for carrying out optical measurements, comprising:

~~at least one~~ two light sources;

means for coupling the light from the two light sources into a common beam;

means for guiding the common beam ~~light emitted from the at least one light source~~ through a sample to be analyzed to generate a first signal and a second signal different from the first signal;

means for detecting the first signal impinging at small angles around the common beam to obtain a nephelometric measurement of the sample; and

means for detecting the second signal substantially simultaneously with detection of the first signal to obtain a spectrophotometric measurement of the sample.

70. (Currently Amended) The apparatus of claim 69, ~~further comprising~~ wherein the two lights sources having different spectral bandwidths.

71. (Currently Amended) The apparatus of claim 69, wherein ~~the at least~~ one of the two light sources includes a narrow band emission in one of the red and infrared spectral regions.

72. (Currently Amended) The apparatus of claim 69, wherein ~~the at least~~ one of the two light sources includes an emission in one of the ultraviolet and visible spectral regions.

73. (Currently Amended) The apparatus of claim 69, wherein the light emitted from [[the]] at least one of the two light sources is a pulsed light.

74. (Cancelled).

75. (Previously Presented) The apparatus of claim 69, further comprising means for detecting the light for a reference signal.

76. (Previously Presented) The apparatus of claim 69, wherein the means for guiding light includes a filter.

77. (Previously Presented) The apparatus of claim 69, wherein the means for guiding light includes a diaphragm.

78. (Previously Presented) The apparatus of claim 74, further comprising means for deflecting light out of the common beam.

79. (Currently Amended) ~~The apparatus of claim 74, further comprising~~ An apparatus for carrying out optical measurements, comprising:

two lights sources having different spectral bandwidths;

means for coupling the light from the two light sources into a common beam;

means for guiding light emitted from the two sources through a sample to be analyzed to generate a first signal and a second signal different from the first signal;

means for detecting the first signal to obtain a nephelometric measurement of the sample;

means for detecting the second signal substantially simultaneously with detection of the first signal to obtain a spectrophotometric measurement of the sample;

means for detecting the light for a reference signal; and

means for detecting light impinging at small angles around the common beam.

80. (Previously Presented) An apparatus for carrying out optical measurements comprising:

at least one light source having a spectral region;

at least one light guidance arrangement for guiding light from said at least one light source along a common beam axis intersecting at least one reaction location and positioned to receive the light from said at least one light source;

at least one filter for separation or combination of at least one desired spectral region and for beam shaping, wherein said at least one filter intersects said common beam axis and is positioned downstream from said at least one light guidance arrangement;

at least one diaphragm for limiting the beam diameter of said at least one light source and for shaping the beam, wherein said at least one diaphragm intersects said common beam axis and is positioned downstream from said at least one light guidance arrangement;

at least one sensor positioned to detect at least one signal generated by a material to be measured and at least one reference signal;

a second diaphragm for masking out the light impinging at small angles around said common beam axis, wherein said second diaphragm intersects said at least one common beam axis, is positioned downstream from said at least one light guidance arrangement, is for masking out the scattered-light impinging at small angles around the forward direction of said common beam axis, and is for transmitting light impinging at small angles around 0 degrees from the material to be measured and relative to said common beam axis for further measurement; and

a beam deflection arrangement, comprising rigid optical components or an optical waveguide with corresponding connection components, positioned to guide out the impinging light from said common beam axis;

wherein the light is detected at angles of less than 5 degrees around the forward directions of said common beam axis and the detected light of said at least one signal is directed to an entrance slit of a spectrophotometric unit.